

LOUISIANA DEPARTMENT OF WILDLIFE & FISHERIES



**OFFICE OF FISHERIES
INLAND FISHERIES SECTION**

PART VI -A

WATERBODY MANAGEMENT PLAN SERIES

BLIND RIVER

HISTORY & MANAGEMENT ISSUES

CHRONOLOGY

December 2012 - Prepared by
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HISTORY

GENERAL INFORMATION

Description

Blind River is a tributary of Lake Maurepas in the Lake Pontchartrain Basin. The headwaters begin approximately 2.5 miles north of Convent, Louisiana, 4.5 miles off the eastern levee of the Mississippi River. It flows northeast from St. James Parish through both Ascension and St. John the Baptist Parishes before discharging into Lake Maurepas. Blind River has numerous tributaries consisting mostly of pipeline canals and bayous. The majority of the watershed consists of Maurepas Swamp and surrounding developed land and agriculture.

River stage

Currently, there is no gauge station in Blind River. The nearest gauge is Amite River at French Settlement approximately 10 river miles northwest of where the Amite Diversion Canal converges with Blind River

(<http://water.weather.gov/ahps2/hydrograph.php?wfo=lix&gage=fsl11&view=1,1,1,1,1,1,1,1&toggles=10,7,8,2,9,15,6&type=0>).

Flood stage at French Settlement is at 4 feet.

Parishes located

St. James, Ascension, St. John the Baptist and Livingston Parishes ([APPENDIX I – MAP AND PARISHES](#)).

Border waters

Lake Maurepas
Amite River
Mississippi River (historically)

ACCESS

Boat docks

2 boat ramps
(SEE [APPENDIX II – MAP AND LANDING](#))

Table 1. Locations of boat ramps for Blind River, LA.

RAMP NAME	COORDINATES*	
St. James Boat Club	30.1012389	-90.7355056
LA Hwy. 642 Landing	30.0744861	-90.7485417

* Coordinates listed in NAD 83, decimal degrees.

Piers

St. James Boat launch

State/Federal facilities

Maurepas Swamp WMA – There are 16 self-clearing permit stations located throughout the WMA, including stations at St. James Boat Club and LA Hwy. 642 Landing.

<http://www.wlf.louisiana.gov/wma/2791>

PHYSICAL DESCRIPTION

Shoreline length

46 miles (both shorelines of 23 river miles)

Timber type

Bald cypress (*Taxodium distichum*) and tupelo gum (*Nyssa aquatica*)

Average depth

12 feet

Water fluctuation

Amite River at French Settlement had a historic high crest of 9.21 feet in August of 2016 and a historic low of -1.50 feet in December of 1954. High water periods are typical for late spring/early summer. High water is also influenced by local tropical storm events. Extremely low water (less than 1.0 feet at Amite River at French Settlement) is rare and only occurs during extreme drought.

Shoreline development

Less than 5% of the shoreline is developed by landowners. Most developments are camps that are only accessible by boat.

EVENTS / PROBLEMS

- Levees disconnect Blind River and surrounding swamps from the Mississippi River. The lack of fresh river water has led to deterioration of Maurepas Swamp and Blind River water quality. The lack of river water has also resulted in the occasional backflow of water from Lake Maurepas.
- The railroad and Highway US 61 act as dams to the transfer of water through the swamp system.

MANAGEMENT ISSUES

AQUATIC VEGETATION

Nuisance species

Common salvinia and water hyacinth have been the main subjects of access and habitat complaints over the past few years. Common salvinia is scattered throughout the basin and is constantly being restocked by the flushing and draining of adjacent swamps and bayous.

Estimates of vegetation coverage (as of November 13, 2017) are provided below:

Problematic Species-

- Common Salvinia (*Salvinia minima*) – 500 acres
- Water Hyacinth (*Eichhornia crassipes*) – 500 acres
- Duckweed (*Lemna spp.*) – 500 acres
- Duck Lettuce (*Ottelia alismoides*) – 500 acres

Beneficial Species

- Yellow Water Lily (*Nymphaea mexicana*) – 75 acres
- Coontail (*Ceratophyllum demersum*) – 45 acres

Control Measures

Biological Control

Salvinia weevils were stocked in the Blind River area in 2008 and will continue to be stocked as they become available. Shortly after the initial stocking, Hurricane Gustav impacted the region and flooded the small slough where our weevil enclosure was being harbored. The flood waters widely dispersed our very small concentration of weevils, inhibiting the ability for them to colonize the area. A site visit was made in 2009, samples were taken, and weevils were not found in samples pulled from the immediate or surrounding area. In late 2013, salvinia weevils living on common salvinia were again introduced into the Blind River area. Follow-up site visits have indicated that weevils are reproducing and spreading in the stocked area. Weevils have been and will continue to be stocked as they become available.

Table 2. Common salvinia weevil stockings on Blind River, LA from 2008-2014.

BLIND RIVER SALVINIA WEEVIL STOCKING HISTORY			
YEAR	NUMBER OF INDIVIDUALS	COORDINATES	
2008	500	30.139167	-90.694722
2013	15,927	30.13862	-90.786074
2014	9,000	30.09492	-90.77851
2014	7,900	30.15024	-90.80627
2017	23,900	30.14944	-90.80701

Chemical Control

Problem areas are treated as they arise with foliar herbicide applications in accordance with the approved LDWF Aquatic Herbicide Application Procedures. Common salvinia should be treated from April 1 – October 31 with a mixture of glyphosate (0.75 gal/acre) and diquat (0.25 gal/acre) with Turbulence surfactant (or approved equivalent, 0.25 gal/acre). From November 1 – March 31, common salvinia will be controlled with diquat (0.75 gal/acre) and a 90:10 non-ionic surfactant (0.25 gal/acre).

Water hyacinth should be controlled with 2,4-D (0.5 gal/acre) and a 90:10 non-ionic surfactant (1 pint/acre) or glyphosate (0.75 gal/acre) and a 90:10 non-ionic surfactant (0.25 gal/acre).

The Blind River generates a large number of complaints each year, and they are addressed accordingly. An average of 836 acres of vegetation is chemically treated annually. In an average year, the majority of the treated vegetation is common salvinia and water hyacinth. The remaining acreage is typically composed of alligator weed, pennywort, primrose, water paspalum and duckweed (Table 3).

The use of herbicides is an important component of the LDWF integrated pest management program. The proper selection and use of herbicides is essential to achieve cost effective benefits and to avoid damage to non-target species. Each product listed has been approved by the Environmental Protection Agency for aquatic use. Aquatic vegetation is treated according to the Aquatic Herbicide Application Procedures as adopted by the LDWF Inland Fisheries Section (Table 4).

Table 3. Foliar herbicide treatments on Blind River, LA from 2008 – 2017.

BLIND RIVER ACRES AQUATIC VEGETATION TREATMENT BY YEAR										
PLANT	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Alligator weed	45	-	25	82	48	63	15	63	75	10
Duckweed	-	15	207	84	21	24	2	18	-	-
Pennywort	3	17	3	18	7	192	5	-	81	51
Primrose	71	-	3	9	-	1	69	179	89	6
Common salvinia	616	820	444	862	1001	183	161	178	168	-
Water hyacinth	149	48	86	29	47	105	-	494	1061	171
Water Paspalum	-	23	135	72	-	-	-	37	-	-
Other	14	1	-	29	-	15	-	72	49	1
TOTAL:	898	923	903	1,185	1,124	583	252	1,041	1,523	239

Table 4. Foliar herbicide treatments by plant species and acres sprayed on the Blind River, Louisiana during 2017.

BLIND RIVER ACRES OF AQUATIC VEGETATION TREATED IN 2017			
SPECIES	ACRES	HERBICIDES*	APPLICATION RATES
Alligator weed	10	2,4-D	0.5 gal/acre
		Imazapyr	0.5 gal/acre
Water hyacinth	171	2,4-D	0.5 gal/acre
Pennywort	51	2,4-D	0.5 gal/acre
Primrose	6	2,4-D	0.75 gal/acre
Other	1	2,4-D	0.5 gal/acre
TOTAL	239		

*All foliar 2,4-D herbicide applications included a non-ionic surfactant at a rate of 0.125 gal/acre, imazapyr included Inergy surfactant at a rate of 0.25 gal/acre.

Limitations

During high water periods within this river complex, common salvinia floods into the surrounding swamps where it flourishes. The LDWF spray crews are unable to access these areas due to the stands of dense timber and shallow water. Consequently, healthy populations of common salvinia drain out of the swamp into the river when water levels drop.

HISTORY OF REGULATIONS

Standardized Regulations

Statewide standard commercial and recreational regulations apply.

<http://www.wlf.louisiana.gov/regulations>

FISH KILLS / DISEASE HISTORY

- July 29, 1991 – Unknown cause
- August 1992 – Hurricane Andrew
- May 24, 1996 – A pipeline failure resulted in the spill of 8,700 barrels of unleaded gasoline. The impact area was approximately two miles of right-of-way and tributaries between Hwy 61 to the KCS railroad tracks. A preliminary list of species included gar, bowfin, gizzard shad, freshwater drum, and sunfishes.
- August 2005 – Hurricane Katrina
- September 2008 – Hurricane Gustav
- August 2012 – Hurricane Isaac

CONTAMINANTS / POLLUTION

Water quality

In 2016, the EPA listed Blind River as an impaired river due to organic enrichment/depletion of oxygen, mercury in fish tissue, and the presence of non-native aquatic plants. The EPA listed atmospheric deposition as a potential source of mercury contamination.

http://ofmpub.epa.gov/tmdl_waters10/attains_watershed.control?p_huc=08070204&p_cycle=&p_report_type=T

Fish consumption advisory

A consumption advisory was issued April 23, 1998 after an unacceptable level of mercury was detected in bowfin. Women of child bearing age and children under the age of seven should limit bowfin consumption to no more than one meal per month. Other adults and children over the age of seven should limit bowfin consumption to no more than four meals a month. This advisory was last reviewed December 4, 2003.

http://new.dhh.louisiana.gov/assets/oph/Center-EH/envepi/fishadvisory/Documents/Blind_River.pdf

BIOLOGICAL

Fish sampling

To monitor the sport fishery of Blind River, LDWF initiated standardized sampling in 1996 (Table 5).

Table 5. Historical and proposed sampling efforts on Blind River, LA from 1996 – 2020.

BLIND RIVER SAMPLING

1996	Electrofishing – 2 stations (spring and fall)
1997	Electrofishing – 3 stations (spring) Electrofishing – 4 stations (fall)
2006	Electrofishing – 4 stations (spring and fall)
2007	Electrofishing – 4 stations (spring and fall)
2008	Electrofishing – 4 stations (spring and fall)
2009	Electrofishing – 4 stations (spring and fall)
2010	Electrofishing – 4 stations (spring and fall)
2012	Electrofishing – 4 stations (spring and fall) Hoop nets – 3 sites
2013*	Electrofishing – 4 stations (spring and fall) Ichthyoplankton trawls – 2 stations (May, June, July)
2014*	Electrofishing – 4 stations (spring and fall) Ichthyoplankton trawls – 2 stations (April, May, June)
2018	LMB age, growth, & mortality project, electrofishing
2019	LMB age, growth, & mortality project, electrofishing
2020	LMB age, growth, & mortality project, electrofishing

*Years of post-hurricane electrofishing sampling efforts to measure natural recovery of fishery.

Stocking History

Initial stocking efforts were a response to major fish kills caused by Hurricane Andrew. Subsequent stockings were the result of Hurricanes Katrina and Gustav. Blind River has been stocked with 442,790 Florida strain largemouth bass since 1995 (Table 6).

Table 6. Stocking history of Blind River, LA from 1993 – 2011.

YEAR	CHANNEL CATFISH	LARGEMOUTH BASS	FLORIDA BASS	BLACK CRAPPIE	BLUEGILL
1993	3,600	64,273			
1994	1,800	99			
1995			27,000		
1996			27,032		
1997			9,800		
1999			12,043		

2000			14,244		
2001			10,000		
2002			10,546		
2003			10,036		
2004			10,013		
2005			6,972		
2006			75,248		89,661
2007	75,169		73,743		60,545
2008	9,168		76,901	1,500	
2009	30,884		75,862		200,976
2010	3,366				
2011			3,350		

A majority of these fish were stocked post hurricanes Katrina and Gustav, in response to public outcry over the massive fish kills that occurred following these storm events. In the post storm absence of predation and competition, the Florida largemouth bass should have become dominant in this coastal river. However, this species failed to become established. Genetic testing conducted in 2010 indicated that less than 7% of the Florida genome was present in the sample results (Table 7). The stockings of Florida largemouth bass in the nearby Tangipahoa, Tickfaw and Amite Rivers yielded similar results (Table 8). The tenacity for recovery of native largemouth bass populations has also been noted in other coastal river systems including the Calcasieu, Mermentau and Sabine rivers in southwest Louisiana following Hurricanes Rita (2005) and Ike (2008). These systems received little to no stockings of largemouth bass before and after the hurricane related fish kills, yet yielded record catch rates within two years into recovery. These observations suggest that native coastal populations of largemouth bass (and other indigenous fish species) have adapted to these periodic storm events and rapid recovery is part of the natural selection process.

Largemouth bass genetics

Over 442,000 Florida largemouth bass have been stocked regularly into Blind River since 1995. A majority of these fish were stocked post Hurricanes Katrina and Gustav in response to massive fish kills. As shown in Table 7, genetic testing of 206 largemouth bass in 2010 showed that less than 7% of the fish sampled were carriers of the Florida allele.

Table 7. Results of 2010 genetic testing for the Florida largemouth bass gene on Blind River, Louisiana.

Number of fish	% Northern	% Hybrid	% Florida
206	93.7	5.8	0.5

Table 8. FLMB stocking details and the resulting genetic composition of northern, Florida, and Fx largemouth bass (intraspecific hybrids) collected during fall electrofishing samples 1996 - 2013.

River/Marsh	Years	Number	Sample	Native	Florida	Hybrid
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System	Stocked	stocked	size	LMB Average %	LMB Average %	LMB Average %
Amite River	1996-2010	780,308	151	91	2	7
Atchafalaya Basin	1992-2009	5,600,000	219	93.7	0.3	6
Blind River	1995-2009	439,440	206	93.7	0.5	5.8
Caernarvon	1996-2008	1,267,277	409	83	4.8	12.2
Cataouatche	2002-2013	52,528	554	84	2.1	13.9
Des Allemands	1993-2011	1,747,752	48	88.2	0	11.8
Tangipahoa	1996-2011	156,052	30	100	0	0
Tickfaw	1996-2011	368,214	93	93	0	7
COMBINED SYSTEMS	1992-2013	10,411,571	1,710	90.8	1.2	7.9

Species profile

A list of species collected or known from Blind River is found in Table 9 below:

Table 9. Fish species collected or known to occur in the Blind River watershed, LA.

Family, Scientific and Common Names

Achiridae – American soles

Trinectes maculatus - northern hogchoker

Acipenseridae – sturgeons

Acipenser oxyrinchus - Atlantic sturgeon

Amiidae – bowfin

Amia calva – bowfin

Aphredoderidae – trout perches

Aphredoderus sayanus - pirate perch

Anguillidae – freshwater eels

Anguilla rostrata - American eel

Atherinopsidae - New World silversides

Labidesthes sicculus - brook silverside

Menidia beryllina - inland silverside

Catostomidae – suckers

Carpiodes carpio - river carpsucker

Erimyzon sucetta - lake chubsucker

Erimyzon oblongus - creek chubsucker

Erimyzon claviformis - western creek chubsucker
Erimyzon tenuis - sharpfin chubsucker
Hypentelium nigricans - northern hogsucker
Minytrema melanops - spotted sucker
Moxostoma poecilurum - blacktail redhorse
Ictiobus bubalus - smallmouth buffalo
Ictiobus cyprinellus - bigmouth buffalo
Ictiobus niger - black buffalo

Centrarchidae - sunfishes

Ambloplites ariommus - shadow bass
Centrarchus macropterus - flier
Elassoma zonatum - banded pygmy sunfish
Lepomis cyanellus - green sunfish
Lepomis humilis - orangespotted sunfish
Lepomis macrochirus - bluegill
Lepomis gulosus - warmouth
Lepomis marginatus - dollar sunfish
Lepomis megalotis - longear sunfish
Lepomis microlophus - redear sunfish
Lepomis symmetricus - bantam sunfish
Micropterus punctulatus - spotted bass
Micropterus salmoides - largemouth bass
Pomoxis annularis - white crappie
Pomoxis nigromaculatus - black crappie

Clupeidae – herrings

Alosa chrysochloris - skipjack herring
Dorosoma cepedianum - gizzard shad
Dorosoma petenense - threadfin shad
Brevoortia patronus - Gulf menhaden

Cyprinidae - carps and minnows

Macrhybopsis aestivalis - speckled chub
Notemigonus crysoleucas - golden shiner
Hybopsis amnis - pallid shiner
Notropis maculatus - taillight shiner
Notropis texanus - weed shiner
Cyprinella venusta - blacktail shiner
Opsopoeodus emiliae - pugnose minnow
Pimephales promelas - fathead minnow
Pimephales vigilax - bullhead minnow
Hybognathus hayi - cypress minnow
Cyprinus carpio - common carp
Notropis atherinoides - emerald shiner
Hypophthalmichthys molitrix - silver carp

Elopidae – tarpons

Elops saurus – ladyfish

Engraulidae – anchovies

Anchoa mitchilli - bay anchovy
 Esocidae – pikes
 Esox americanus - grass pickerel
 Esox niger - chain pickerel
 Fundulidae – topminnows and killifishes
 Fundulus chrysotus - golden topminnow
 Fundulus catenatus - studfish
 Fundulus notatus - blackstripe topminnow
 Fundulus olivaceus - blackspotted topminnow
 Fundulus euryzonus - broadstripe topminnow
 Ictaluridae - North American catfishes
 Ameiurus melas - black bullhead
 Ameiurus natalis - yellow bullhead
 Ameiurus nebulosus - brown bullhead
 Ictalurus furcatus - blue catfish
 Ictalurus punctatus - channel catfish
 Pylodictis olivaris - flathead catfish
 Noturus gyrinus - tadpole madtom
 Lepisosteidae - gars
 Lepisosteus oculatus - spotted gar
 Lepisosteus osseus - longnose gar
 Lepisosteus platostomus - shortnose gar
 Lepisosteus spatula - alligator gar
 Moronidae – temperate basses
 Morone mississippiensis - yellow bass
 Morone chrysops - white bass
 Mugilidae – mullets
 Mugil cephalus - striped mullet
 Petromyzontidae - northern lampreys
 Ichthyomyzon gagei - southern brook lamprey
 Paralichthyidae – flounders
 Paralichthys lethostigma - southern flounder
 Percidae – perches
 Etheostoma chlorosomum - bluntnose darter
 Etheostoma fusiforme - swamp darter
 Etheostoma proeliare - cypress darter
 Percina sciera - dusky darter
 Percina caprodes – logperch
 Poeciliidae – livebearers
 Gambusia affinis - western mosquitofish
 Poecilia latipinna - sailfin molly
 Heterandria formosa - least killifish
 Polyodontidae – paddlefishes
 Polyodon spathula – paddlefish
 Sciaenidae – drums
 Aplodinotus grunniens - freshwater drum

Micropogonias undulatus - Atlantic croaker
Sparidae – porgies
Archosargus probatocephalus - sheepshead
Lagodon rhomboides – pinfish
Syngnathidae – pipefishes and seahorses
Syngnathus scovelli - Gulf pipefish

Threatened/endangered/exotic species

The pallid sturgeon (*Scaphirhynchus albus*) inhabits the reach of the Mississippi River adjacent to where it used to connect to Blind River. Paddlefish (*Polyodon spathula*), Alabama shad (*Alosa alabamae*) and Gulf sturgeon (*Acipenser oxyrinchus desotoi*) are inhabitants of the Lake Pontchartrain Basin.

Beginning in early summer of 2012, adult silver carp (*Hypophthalmichthys molitrix*) have been observed in the nearby Amite River. These fish may have been introduced via the Bonnet Carré Spillway operation by the US Army Corps of Engineers during the 2011 flood event. To date, no juveniles have been observed.

The invasive apple snail (*Pomacea maculata*) has been documented in the New River Canal, a discharge canal that empties into the Petite Amite River, which empties into the Blind River. As of summer 2018, heavy infestations of the snail have been reported throughout the area.

ANGLER SURVEYS

No angler surveys have been conducted

HYDROLOGICAL CHANGES

- Mississippi River levee resulted in the lack of fresh river water entering the system.
- Construction of Highway 61 and railroad have impeded water flow through adjacent swamp

WATER USE

Hunting

Yes. Maurepas Swamp Wildlife Management Area encompasses more than half of Blind River and its tributaries ([APPENDIX III](#) – MAP AND WMA).

Skiing

Yes

Scuba Diving

No

Swimming

Yes

Irrigation

No

Fishing

Yes

Boating

Yes

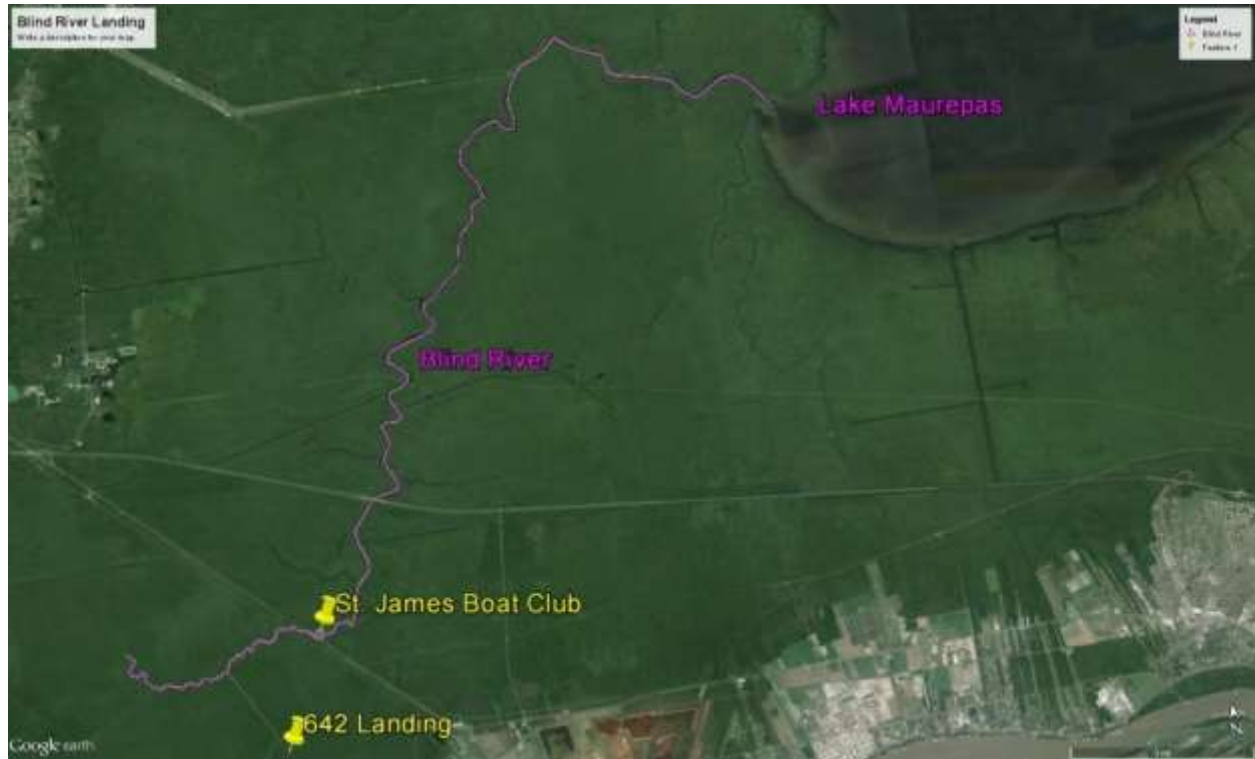
APPENDIX I – MAP AND PARISHES

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APPENDIX II – MAP AND LANDING

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APPENDIX III – MAP AND WMA

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